Changes in TB awards program considered

The recent implementation of the *Comprehensive Strategic Plan for the Eradication of Bovine Tuberculosis* by APHIS signals the immediate need to enhance surveillance of cattle at slaughter to identify any remaining pockets of infection, and to ensure other areas are truly disease free.

One action item of the plan recommends that incentive awards be increased to meat inspection personnel for identifying new infections of bovine TB.

In response, APHIS is now considering changes to the TB performance awards program. These changes would increase the cash award for finding a TB positive animal and herd and a new award may be added for frequent submitters of suspicious granulomas. A few of the details of the new proposals are:

- FSIS food inspectors and VMO's will be considered for a cash award of $100 for steers and $500 for adult animals to be shared equally each time *Mycobacteriosis* is reported on histopathology by NVSL. If the specimen is positive for *M. tuberculosis complex* on the PCR test, or *M. bovis* is isolated, the cash award will be increased to a total of $200 for steers and fed heifers and $1,000 for adult animals.
- FSIS food inspectors and VMO's will be considered for a second cash award of $6,000 to be shared equally when an infected herd located in the United States is initially found as a result of the information provided to Veterinary Services regarding the identification of the lesioned animal.
- A team award of $300 per team member will be awarded annually to high submitting FSIS slaughter inspection groups irrespective of histopathology results. High submitting establishments will qualify at the end of each fiscal year when the plant is credited with one or more suspicious tuberculosis lesions or thoracic granulomas submitted per 1,000 cattle killed.

FSIS Field Operations Staff in Washington, D.C. and FSIS District Managers will be notified by APHIS when and if these proposed changes to the TB Performance Awards Program are approved.

TB surveillance needs boost

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"This method of detecting new cases of TB is economical and effective as long as sufficient numbers of suspicious lesions (often referred to as "granulomas") are submitted to detect TB at the very low prevalence level that exists today.," Meyer said. "In recent years, however, the number of suspicious granulomas being submitted for diagnosis from adult, slaughter cattle has greatly decreased. "

Dr. Bob Meyer, VS regional epidemiologist, has been selected to spearhead the TB surveillance effort.

Meyer said only 436 submissions were made from adult cattle last year. He cautioned that the current level of granulomas submitted may not allow the few remaining TB-infected herds in the United States to be detected in time to reach the national goal of TB eradication in domestic livestock by December 31, 2003.

TB Surveillance

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Call made to increase granuloma submissions

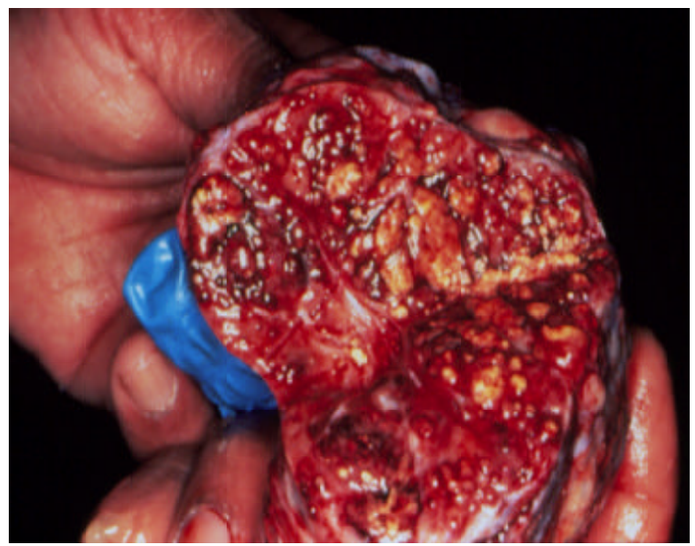
TB surveillance needs boost

Efforts need to be implemented on a national basis now to drastically increase the numbers of suspicious granulomas submitted to the laboratory for tuberculosis surveillance, especially from adult cattle.

This is the assessment of Dr. Robert Meyer, National Bovine Tuberculosis (TB) Surveillance Coordinator for Veterinary Services. Meyer explained that surveillance by skin testing, including periodic TB testing of cattle on farms throughout the United States, now plays a relatively minor role in detecting TB-infected herds since fewer than one million tuberculin tests are conducted in cattle annually.

According to Meyer, primary surveillance for TB in cattle today depends largely on the efforts of veterinarians and food inspectors working with USDA's Food Safety and Inspection Service (FSIS) and state meat inspection agencies.

"New cases of TB may be detected when cattle move to slaughter and are inspected for evidence of disease by federal or state meat inspection personnel," Meyer said. "Cattle showing gross signs or lesions suspected of being TB are sampled, and sent to the laboratory for a definitive diagnosis."



TB lesions may be limited to lymph nodes of the head without thoracic involvement as pictured above. All lesions resembling TB need to be submitted to the lab so that the remaining pockets of TB infection in the U.S. cattle population can be readily identified.

Samples found to be positive for TB are then traced by animal health personnel to their herds of origin, and the herd is tested and restricted from further movement.

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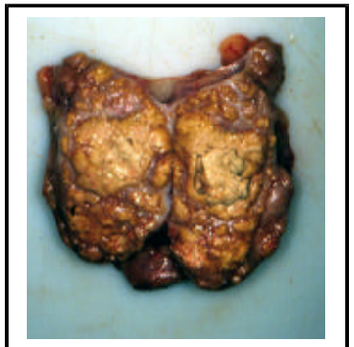
Submission rates increase in pilot program

Pilot projects conducted in large, adult cattle kill plants in the early 1990's in Nebraska, and more recently in California, have shown that granuloma submission rates can be improved significantly and quickly when an Enhanced Granuloma Submission Program is implemented.

The California pilot project improved granuloma submission rates nearly 1,000% within the first few months of operation.

An Enhanced Granuloma Submission Program allows additional personnel (animal health assistants) to assist meat inspection personnel with the packaging and shipping of tissues containing granulomas.

The program provides a means by which more samples can be processed and sent to the laboratory daily, without compromising the meat inspection veterinarian's current responsibility for oversight of the process.



Early TB lesions may appear less organized and may resemble an abscess.

Granulomas in a mediastinal lymph node caused by *Coccidioides immitis*. Such lesions may resemble TB grossly and should be submitted to the laboratory for definitive diagnosis.

All granulomas detected in lymph nodes and other organs from any area of the body are targeted for submission to the laboratory so that TB may be detected in those cases where the disease may either have an atypical appearance or where the disease has recently been introduced. By emphasizing the need to collect and submit all granulomas detected in adult cattle, the probability of detecting TB will be significantly increased.

An Enhanced Granuloma Submission Program generally operates by placing plastic, sample collection bags in an area of the kill floor where final examination of the carcass is conducted. When the meat inspection veterinarian notices granulomas in lymph nodes during the final post mortem examination, representative samples of the suspicious tissue are placed in the sample collection bag and a card is marked indicating where in the carcass the suspicious tissue originated.

The carcass number and retained tag numbers are also recorded on the card and the card is placed in the sample collection bag with the tissue. During the day, animal health assistants collect the bags and prepare the suspicious tissue for submission to the laboratory.

Identification devices correlated to the suspicious carcass are recovered and placed with the tissue sample in the shipping container.

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Emergency funds available for TB eradication

On Oct. 16, 2000, Agriculture Secretary Dan Glickman signed a declaration of emergency, authorizing the transfer of $44 million this year to expand the bovine tuberculosis eradication program in the United States. This is an initial payment on what is expected to be a multi-year effort to finally eliminate TB from domestic livestock in the country, and to insure that it does not recur.

"These emergency funds will be used to help curb this disease in the United States," Glickman said. "The spread of the disease in this country could compromise international and domestic trade of U.S. animals and animal products and threaten producers with losses and consumers with price increases."

To help secure this additional funding, USDA APHIS Veterinary Services developed *The Comprehensive Strategic Plan for the Eradication of Bovine Tuberculosis.* This plan lays out the overall strategy for eradication of the disease and includes specific actions steps necessary to accomplish the strategies. These strategies include:

-Eradicating TB from the remaining pockets of infection in the domestic livestock populations;

-Eradicating TB from particular wildlife populations in order to prevent transmission of the disease from wildlife to domestic livestock;

-Implementing increased levels of surveillance to ensure that unknown or new incidences of TB can be eliminated before they spread; and

-Increasing laboratory and diagnostic support to increase testing capacity and to incorporate new methods and technology.

The strategic plan also includes a cost benefit analysis and projected budget needs for accomplishing the goal of eradicating TB from the domestic livestock population.

Animal ID is key to locating TB infection

Continued from page 2.

The animal health assistant then completes all required forms, and presents them to the meat inspection veterinarian for review and signature.

Samples are shipped to the diagnostic laboratory by overnight express so that a diagnosis can be obtained within a few days. Communication of these lab results back to the plant is extremely critical so that costs associated with retaining carcasses can be minimized, and plant cooperation continued.

All plants that slaughter a significant number of adult cattle (cows and bulls) should be considered for implementation of an Enhanced Granuloma Submission Program since adult cattle provide the best opportunity for detecting new cases of TB in cattle on U.S. farms. Forty U.S. plants slaughter 90% of all adult cattle that are slaughtered annually in the United States. Twenty of these 40 plants slaughter over 100,000 adult cattle each year. These plants need targeting now to quickly improve TB surveillance.

Submission of all animal identification devices, such as those pictured here, greatly improves the chances of locating TB infected herds.

For information about implementing the Enhanced Granuloma Submission Program, please contact Dr. Bob Meyer, National VS TB Surveillance Coordinator at 970-490-8061 or robert.m.meyer@usda.gov.